

**REMARKS**

The Office Action dated March 17, 2006 has been carefully reviewed. Claims 1-18 are pending in this application. Applicants request reconsideration of this application in light of the remarks presented herein.

**CLAIM REJECTIONS BASED ON § 102 - GRIEVE**

In the official action dated March 17, 2006, claims 1-18 were rejected by the Examiner under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0108306 to Grieve et al. ("Grieve").

**A. The Rejections of Independent Claims 1, 8, and 16**

MPEP § 2131 provides that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

The Examiner rejected independent claims 1, 8, and 16 alleging that Grieve teaches all of the elements contained in claims 1, 8, and 16. In particular, the Examiner alleges that Grieve teaches:

[A] method of operating a fuel reformer [0008], comprising the steps of: determining the temperature of a reformat gas produced by the fuel reformer [0008], and adjusting an air-to-fuel ratio of an air/fuel mixture processed by the fuel reformer based on the temperature of the reformat gas [0008].

Contrary to the Examiner's statement that all of the elements of claims 1, 8, and 16 are disclosed in Grieve, "adjusting an air-to-fuel ratio of an air/fuel mixture processed by the fuel reformer based on the temperature of the reformat gas" is not. As such, the rejections are unsupported by the art and should be withdrawn.

Grieve discloses a fuel reformer 22 having a dual air actuator 100 including first air 48 and second air 50. (Grieve, pg. 2, [0020].) The first air 48 and second air 50 are mixed with fuel 30 before entering the fuel reformer 22 to create a mixed stream 80. *Id.* Grieve discloses that an advantage of the air actuator system 100 is that the temperature at an inlet 70 of the fuel reformer 22 can be regulated through use of the first air 48 and second air 50 with the fuel 30. (Grieve, pg. 3, [0029].) However, Grieve also discloses that:

Another advantage of dual air actuator system 100 is that first air 48 and second air 50 help to maintain a stable, regular, **uniform air/fuel ratio** to provide efficiency in fuel reformer 22 and also to prevent coking and deposition of soot in fuel reformer 22.

(Grieve, p. 3, [0030].)

This portion of the disclosure contradicts the Examiner's assertion that Grieve teaches "adjusting an air-to-fuel ratio of an air/fuel mixture processed by the fuel reformer based on the temperature of the reformat gas." While Grieve discloses a system using two air streams 48, 50 that are manipulated to mix with the fuel 30 to control the inlet temperature of the mixed stream 80 entering the fuel reformer 22, the portion of the disclosure above provides that, regardless of how the air streams 48, 50 are manipulated, the air/fuel ratio is held uniform. Clearly, Grieve

does not teach "adjusting an air-to-fuel ratio of an air/fuel mixture" nor would it be obvious because Grieve explicitly teaches a uniform air-to-fuel ratio. Therefore, the Examiner's rejections of independent claims 1, 8, and 16 are improper and should be withdrawn.

**B. The Rejections of Claims 2-7**

Claims 2-7 are either directly or indirectly dependent upon claim 1. As a result, the rejections of claims 2-7 should be withdrawn for at least the reasons discussed in regard to claim 1.

**C. The Rejections of Claims 9-15**

Claims 9-15 are dependent upon claim 8. As a result, the rejections of claims 9-15 should be withdrawn for at least the reasons discussed in regard to claim 8.

**D. The Rejections of Claims 17 and 18**

Claims 17-18 are dependent upon claim 16. As a result, the rejections of claims 17 and 18 should be withdrawn for at least the reasons discussed in regard to claim 16.

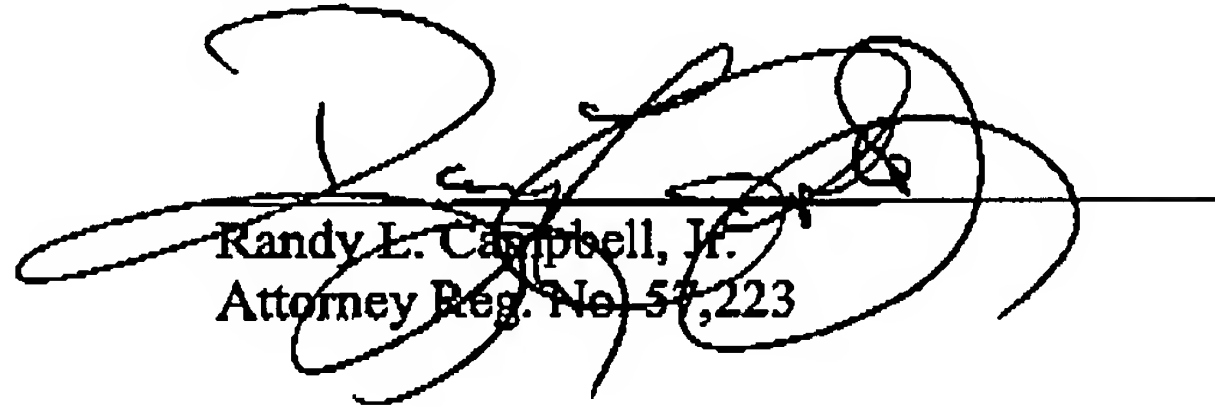
**CONCLUSION**

In view of the foregoing remarks, it is submitted that this application is in condition for allowance. Action to that end is hereby solicited.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and shortages in other fees be charged, or any overpayment in fees be credited, to the Account of Barnes & Thornburg LLP, Deposit Account No. 10-0435 with reference to file 9501-73118.

Respectfully submitted,

BARNES & THORNBURG LLP



Randy L. Campbell, Jr.  
Attorney Reg. No. 57,223

Indianapolis, Indiana  
(317)229-3106

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